

RECEIVED

FEB 20 2003

TECH CENTER 1600

1600

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/756,096A

DATE: 02/20/2003

TIME: 08:27:49

Input Set : A:\09756096 sequence listing.txt

Output Set: N:\CRF4\02202003\I756096A.raw

4 <110> APPLICANT: Mitchell, Lloyd G.  
5 Garcia-Blanco, Mariano A.  
6 Puttaraju, Madaiah  
7 Mansfield, Gary S.

10 <120> TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR USE IN  
11 SPLICEOSOME MEDIATED RNA TRANS-SPLICING

14 <130> FILE REFERENCE: A31304-B-A-B 072874.0135

16 <140> CURRENT APPLICATION NUMBER: 09/756,096A

17 <141> CURRENT FILING DATE: 2001-01-08

19 <150> PRIOR APPLICATION NUMBER: 09/158,863

20 <151> PRIOR FILING DATE: 1998-09-23

22 <150> PRIOR APPLICATION NUMBER: 09/133,717

23 <151> PRIOR FILING DATE: 1998-08-13

25 <150> PRIOR APPLICATION NUMBER: 09/087,233

26 <151> PRIOR FILING DATE: 1998-05-28

28 <150> PRIOR APPLICATION NUMBER: 08/766,354

29 <151> PRIOR FILING DATE: 1996-12-13

31 <150> PRIOR APPLICATION NUMBER: 60/008,317

32 <151> PRIOR FILING DATE: 1995-12-15

34 <160> NUMBER OF SEQ ID NOS: 105

36 <170> SOFTWARE: FastSEQ for Windows Version 4.0

38 <210> SEQ ID NO: 1

39 <211> LENGTH: 132

40 <212> TYPE: DNA

41 <213> ORGANISM: Homo sapien

43 <400> SEQUENCE: 1

44 caggggacgc accaaggatg gagatgttcc agggcgctga tgatgttggt gattcttctt 60

45 aaatcttttg tgatggaaaa cttttcttcg taccacggga ctaaacctgg ttatgtagat 120

46 tccattcaaa aa 132

48 <210> SEQ ID NO: 2

49 <211> LENGTH: 29

50 <212> TYPE: DNA

51 <213> ORGANISM: Corynebacterium diptheriae

53 <400> SEQUENCE: 2

54 ggcgctgcag ggcgctgatg atgttggtg 29

56 <210> SEQ ID NO: 3

57 <211> LENGTH: 36

58 <212> TYPE: DNA

59 <213> ORGANISM: Corynebacterium diptheriae

61 <400> SEQUENCE: 3

62 ggcgaagctt ggatccgaca cgatttcctg cacagg 36

64 <210> SEQ ID NO: 4

65 <211> LENGTH: 68

ENTERED

## RAW SEQUENCE LISTING

DATE: 02/20/2003

PATENT APPLICATION: US/09/756,096A

TIME: 08:27:50

Input Set : A:\09756096 sequence listing.txt

Output Set: N:\CRF4\02202003\I756096A.raw

```

66 <212> TYPE: DNA
67 <213> ORGANISM: Artificial Sequence
69 <220> FEATURE:
70 <223> OTHER INFORMATION: Oligonucleotide
72 <400> SEQUENCE: 4
73 aattctctag atgcttcacc cgggcctgac tcgagtacta actggtacct cttctttttt 60
74 ttcctgca 68
76 <210> SEQ ID NO: 5
77 <211> LENGTH: 60
78 <212> TYPE: DNA
79 <213> ORGANISM: Artificial Sequence
81 <220> FEATURE:
82 <223> OTHER INFORMATION: Oligonucleotide
84 <400> SEQUENCE: 5
85 ggaaaaaaaaa gaagaggtac cagttagtac tcgagtcagg cccgggtgaa gcatctagag 60
88 <210> SEQ ID NO: 6
89 <211> LENGTH: 24
90 <212> TYPE: DNA
91 <213> ORGANISM: Artificial Sequence
93 <220> FEATURE:
94 <223> OTHER INFORMATION: Oligonucleotide primer
96 <400> SEQUENCE: 6
97 tcgagcaacg ttataataat gttc 24
99 <210> SEQ ID NO: 7
100 <211> LENGTH: 24
101 <212> TYPE: DNA
102 <213> ORGANISM: Artificial Sequence
104 <220> FEATURE:
105 <223> OTHER INFORMATION: Oligonucleotide primer
107 <400> SEQUENCE: 7
108 tcgagaacat tattataacg ttgc 24
110 <210> SEQ ID NO: 8
111 <211> LENGTH: 35
112 <212> TYPE: DNA
113 <213> ORGANISM: Artificial Sequence
115 <220> FEATURE:
116 <223> OTHER INFORMATION: Oligonucleotide primer
118 <400> SEQUENCE: 8
119 aattctctag atcaggcccc ggtgaagcac tcgag 35
121 <210> SEQ ID NO: 9
122 <211> LENGTH: 25
123 <212> TYPE: DNA
124 <213> ORGANISM: Artificial Sequence
126 <220> FEATURE:
127 <223> OTHER INFORMATION: Oligonucleotide primer
129 <400> SEQUENCE: 9
130 tgcttcaccc gggcctgatc tagag 25
132 <210> SEQ ID NO: 10
133 <211> LENGTH: 18

```

## RAW SEQUENCE LISTING

DATE: 02/20/2003

PATENT APPLICATION: US/09/756,096A

TIME: 08:27:50

Input Set : A:\09756096 sequence listing.txt

Output Set: N:\CRF4\02202003\I756096A.raw

```

134 <212> TYPE: DNA
135 <213> ORGANISM: Homo sapien
137 <400> SEQUENCE: 10
138 tgcttcaccc ggcctga 18
140 <210> SEQ ID NO: 11
141 <211> LENGTH: 16
142 <212> TYPE: DNA
143 <213> ORGANISM: Homo sapien
145 <400> SEQUENCE: 11
146 ctcttctttt ttttcc 16
148 <210> SEQ ID NO: 12
149 <211> LENGTH: 18
150 <212> TYPE: DNA
151 <213> ORGANISM: Homo sapien
153 <400> SEQUENCE: 12
154 caacgttata ataatgtt 18
156 <210> SEQ ID NO: 13
157 <211> LENGTH: 16
158 <212> TYPE: DNA
159 <213> ORGANISM: Homo sapien
161 <400> SEQUENCE: 13
162 ctgtgattaa tagcgg 16
164 <210> SEQ ID NO: 14
165 <211> LENGTH: 16
166 <212> TYPE: DNA
167 <213> ORGANISM: Homo sapien
169 <400> SEQUENCE: 14
170 cctggacgcg gaagtt 16
172 <210> SEQ ID NO: 15
173 <211> LENGTH: 51
174 <212> TYPE: DNA
175 <213> ORGANISM: Homo sapien
177 <400> SEQUENCE: 15
178 ctgggacaag gacactgctt caccgggtta gtagaccaca gccctgaagc c 51
180 <210> SEQ ID NO: 16
181 <211> LENGTH: 17
182 <212> TYPE: DNA
183 <213> ORGANISM: Homo sapien
185 <400> SEQUENCE: 16
186 cttctgtttt ttttctc 17
188 <210> SEQ ID NO: 17
189 <211> LENGTH: 16
190 <212> TYPE: DNA
191 <213> ORGANISM: Homo sapien
193 <400> SEQUENCE: 17
194 cttctgtatt attctc 16
196 <210> SEQ ID NO: 18
197 <211> LENGTH: 16
198 <212> TYPE: DNA

```

## RAW SEQUENCE LISTING

DATE: 02/20/2003

PATENT APPLICATION: US/09/756,096A

TIME: 08:27:50

Input Set : A:\09756096 sequence listing.txt

Output Set: N:\CRF4\02202003\I756096A.raw

```

199 <213> ORGANISM: Homo sapien
201 <400> SEQUENCE: 18
202 gttctgtcct tgtctc 16
204 <210> SEQ ID NO: 19
205 <211> LENGTH: 29
206 <212> TYPE: DNA
207 <213> ORGANISM: Corynebacterium diptheriae
209 <400> SEQUENCE: 19
210 ggcgctgcag ggcgctgatg atgttggtg 29
212 <210> SEQ ID NO: 20
213 <211> LENGTH: 36
214 <212> TYPE: DNA
215 <213> ORGANISM: Corynebacterium diptheriae
217 <400> SEQUENCE: 20
218 ggcgaagctt ggatccgaca cgatttcctg cacagg 36
220 <210> SEQ ID NO: 21
221 <211> LENGTH: 21
222 <212> TYPE: DNA
223 <213> ORGANISM: Corynebacterium diptheriae
225 <400> SEQUENCE: 21
226 catcgtcata atttccttgt g 21
228 <210> SEQ ID NO: 22
229 <211> LENGTH: 20
230 <212> TYPE: DNA
231 <213> ORGANISM: Corynebacterium diptheriae
233 <400> SEQUENCE: 22
234 atggaatcta cataaccagg 20
236 <210> SEQ ID NO: 23
237 <211> LENGTH: 20
238 <212> TYPE: DNA
239 <213> ORGANISM: Corynebacterium diptheriae
241 <400> SEQUENCE: 23
242 gaaggctgag cactacacgc 20
244 <210> SEQ ID NO: 24
245 <211> LENGTH: 20
246 <212> TYPE: DNA
247 <213> ORGANISM: Homo sapien
249 <400> SEQUENCE: 24
250 cggcaccgtg gccgaagtgg 20
252 <210> SEQ ID NO: 25
253 <211> LENGTH: 30
254 <212> TYPE: DNA
255 <213> ORGANISM: Homo sapien
257 <400> SEQUENCE: 25
258 accggaattc atgaagccag gtacaccagg 30
260 <210> SEQ ID NO: 26
261 <211> LENGTH: 20
262 <212> TYPE: DNA
263 <213> ORGANISM: Homo sapien

```

## RAW SEQUENCE LISTING

DATE: 02/20/2003

PATENT APPLICATION: US/09/756,096A

TIME: 08:27:50

Input Set : A:\09756096 sequence listing.txt

Output Set: N:\CRF4\02202003\I756096A.raw

```

265 <400> SEQUENCE: 26
266 gggcaagggtg aacgtggatg                                20
268 <210> SEQ ID NO: 27
269 <211> LENGTH: 19
270 <212> TYPE: DNA
271 <213> ORGANISM: Homo sapien
273 <400> SEQUENCE: 27
274 atcaggagtg gacagatcc                                19
276 <210> SEQ ID NO: 28
277 <211> LENGTH: 39
278 <212> TYPE: DNA
279 <213> ORGANISM: Artificial Sequence
281 <220> FEATURE:
282 <223> OTHER INFORMATION: Oligonucleotide primer complimentary to the
283     Escherichia coli lacZ gene
285 <400> SEQUENCE: 28
286 gcatgaattc ggtacatgg gggggttctc atcatcatc          39
288 <210> SEQ ID NO: 29
289 <211> LENGTH: 36
290 <212> TYPE: DNA
291 <213> ORGANISM: Artificial Sequence
293 <220> FEATURE:
294 <223> OTHER INFORMATION: Oligonucleotide primer complimentary to the
295     Escherichia coli lacZ gene
297 <400> SEQUENCE: 29
298 ctgaggatcc tcttacctgt aaacgcccac actgac            36
300 <210> SEQ ID NO: 30
301 <211> LENGTH: 38
302 <212> TYPE: DNA
303 <213> ORGANISM: Artificial Sequence
305 <220> FEATURE:
306 <223> OTHER INFORMATION: Oligonucleotide primer complimentary to the
307     Escherichia coli lacZ gene
309 <400> SEQUENCE: 30
310 gcatggtaac cctgcagggc ggcttcgtct gggactgg          38
312 <210> SEQ ID NO: 31
313 <211> LENGTH: 38
314 <212> TYPE: DNA
315 <213> ORGANISM: Artificial Sequence
317 <220> FEATURE:
318 <223> OTHER INFORMATION: Oligonucleotide primer complimentary to the
319     Escherichia coli lacZ gene
321 <400> SEQUENCE: 31
322 ctgaaagctt gttaacttat tatttttgac accagacc          38
324 <210> SEQ ID NO: 32
325 <211> LENGTH: 47
326 <212> TYPE: DNA
327 <213> ORGANISM: Artificial Sequence
329 <220> FEATURE:

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/756,096A

DATE: 02/20/2003  
TIME: 08:27:51

Input Set : A:\09756096 sequence listing.txt  
Output Set: N:\CRF4\02202003\I756096A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:54; N Pos. 57,58,59,60,61,62,63,64,65,66,67,68,69,70  
Seq#:55; N Pos. 57,58,59,60,61,62,63,64,65,66,67,68,69,70  
Seq#:56; N Pos. 57,58,59,60,61,62,63,64,65,66,67,68,69,70  
Seq#:85; N Pos. 7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27  
Seq#:85; N Pos. 28,29,30

## VERIFICATION SUMMARY

DATE: 02/20/2003

PATENT APPLICATION: US/09/756,096A

TIME: 08:27:51

Input Set : A:\09756096 sequence listing.txt

Output Set: N:\CRF4\02202003\I756096A.raw

L:545 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:550 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:54  
L:551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54 after pos.:0  
M:341 Repeated in SeqNo=54  
L:563 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:568 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:55  
L:569 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:0  
M:341 Repeated in SeqNo=55  
L:581 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:586 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:56  
L:587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:0  
M:341 Repeated in SeqNo=56  
L:947 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:951 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:85  
L:952 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85 after pos.:0